



ALOHA H₂O

Trace Moisture in Ammonia Gas Analyzer

AUTOMOTIVE

ENERGY

ENVIRONMENTAL

GASES & CHEMICALS

LABORATORIES

LEDS

SEMICONDUCTORS

Designed for trace moisture in ammonia analysis, the ALOHA H₂O offers:

- Low parts per billion (ppb) moisture detection capability in ammonia (NH₃)
- Absolute measurement (freedom from calibration)
- Extremely low cost of ownership
- Great ease of use
- Wide dynamic range – over four orders of magnitude
- Unprecedented speed of response
- Clean technology

A superior analytical solution for your HB LED needs

The ALOHA H₂O moisture analyzer provides High Brightness LED makers with the exceptional detection limits, accuracy, reliability, speed of response and ease of operation that Tiger Optics customers have come to expect.

Manufacturers of HB LED's rely on Tiger Optics' family of patented Continuous Wave Cavity Ring-Down Spectroscopy-based moisture sensors to ensure the ammonia gas used in the process are of the high quality necessary to

produce the best performing LEDs. The Aloha H₂O analyzer is extremely cost-effective, utilizing a very compact analyzer design. Users can measure moisture in ammonia and inerts. There are no off-line periodic sensor maintenance procedures, no span calibrations, no purifier replacement and no pump rebuilds required. The ALOHA H₂O is fully self-calibrating and the "bright" choice for your detection needs!

Tigeroptics

21ST CENTURY SPECTROSCOPY

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Performance: H₂O in NH₃

Operating range	0 - 20 ppm
Detection limit (LDL, 24 hr. peak-to-peak)	10 ppb
Sensitivity (3 σ)	8 ppb
Accuracy (greater of)	\pm 4%, or 1/2 of LDL
Speed of Response	<3 minutes to 95 %
Environmental conditions	10 °C – 40 °C, 30 – 80% RH (non-cond)
Storage Temperature	-10°C – 50°C

Gas Handling System and Conditions*

Wetted materials	316L stainless steel (optional Hastelloy®) 10 Ra surface finish
Gas connections	1/4" male VCR inlet and outlet
Leak tested to	1 \times 10 ⁻⁹ mbar l / sec
Inlet pressure	10 – 125 psig (1.7 – 9.6 bara)
Flow rate	< 1.8 slpm
Sample gases	Ammonia (NH ₃) and inerts
Gas temperature	Up to 60 °C

* Vacuum Pump Required

U. S. Patent # 5,528,040 • Other patents pending

Dimensions

Sensor rack	H x W x D [inches(mm)] 8.75 x 19 x 23.6 (222 x 483 x 599)
Standard sensor	8.75 x 8.5 x 23.6 (222 x 216 x 599)

Weight

Standard sensor	29.6 lbs (13.4 kg)
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Electrical

Alarm indicators	2 User programmable, 1 System fault Form-C relays
Power requirements	90-240 VAC 50/60 Hz
Power consumption	40 Watts max.
Signal output	0-5 VDC, isolated 0-20 or 4-20 mA output per sensor
User interface	5.6" LCD/Touchscreen 10/100BaseT Ethernet 802.11 g Wireless (optional) RS-232

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